BEREA COLLEGE
2011 – 2012 CURRICULUM GUIDE (revised 9/28/11)

B.A. with major in CHEMISTRY

NOTE: This guide is subject to change and represents actions approved by Faculty to date. Please refer often to the *2011-2012 Online Catalog & Student Handbook (www.berea.edu/cataloghandbook),* which will be updated with the most current information.

GENERAL EDUCATION PROGRAM

NOTE: No single college course transferred into Berea can meet more than one General Education requirement.

Core Courses	Term	Credit
MAT 010: Prealgebra[a]	_____	NC
MAT 011: Elementary Algebra I[a]	_____	NC
MAT 012: Elementary Algebra II[a]	_____	NC
GSTR 110: Writing Sem. I: Critical Thinking in the Liberal Arts[b]	_____	___
GSTR 210: Writing Sem. II: Identity and Diversity in the United States	_____	1
GSTR 310: Understandings of Christianity	_____	1
GSTR 410: Sr. Sem. in Cont. Global Issues	_____	1

Scientific Knowledge and Inquiry

GSTR 332: Scientific Knowledge & Inquiry _____ ___

OR

Two approved science courses, one of which must be an approved lab course. At this time, only the following courses have been approved to meet this alternative (all of which meet the lab course stipulation): ANR 110, 130, BIO 100, BIO 101, 110, CHM 113, 131, 134, PHY 111, 217, or 315

_____ ____: _____ _____ ___
_____ ____: _____ _____ ___

Lifetime Health & Fitness: PEH 100 & Phys. Activity

PEH 100: Introduction to Lifetime Wellness _____ .50
(if swimming proficiency test not passed, take PED 200)
PED 2___: _____ _____ .25
PED 2___: _____ _____ .25

Practical Reasoning Across the Curriculum (PR & PRQ)

Two courses—at least one firmly grounded in math or statistics (PRQ); the other can be an approved practical reasoning (PR) course or another PRQ course.

_____ ____: _____ _____ 1
_____ ____: _____ _____ 1

Perspectives—Six Areas Required

Students will satisfy each of the six areas by taking or waiving a course, or through an approved experience. Individual courses may be approved to satisfy more than one Perspective, but no single course may satisfy more than two Perspective areas.

1. Arts _____ _____ _____
2. Social Science _____ _____ _____
3. Western History _____ _____ _____
4. Religion _____ _____ _____
5. Afr. Amer., Appal., Women's _____ _____ _____
6. International (two courses either in area 6A or area 6B):
   - A) Same Non-English Language[c] _____ _____ _____
     Same Non-English Language _____ _____ _____
     (one course may be waived by placement exam)

     OR
   - B) World Culture (Non-western) _____ _____ _____
     World Culture (Western/non-western)____ _____ _____

Active Learning Experience (ALE)

An approved experience, taken for credit or as noncredit.[d]

_____ ____: _____ _____ _____

[a] May be waived on basis of test scores.

[b] Transfer students might waive GSTR 110 if they took College Composition as a degree-seeking student at another college AND earned a grade of B or higher.

MAJOR COURSES

Core Courses	Term	Credit
CHM 131: Accel. General Chemistry[e] **OR** CHM 134: Accel. Environmental Chemistry[e]	_____	1
CHM 221: Organic Chemistry I	_____	1
CHM 222: Organic Chemistry II	_____	1
CHM 311: Analytical Chemistry	_____	1
CHM 345: Biochemistry	_____	1
CHM 370: Advanced LAB I*	_____	.5
CHM 371: Advanced LAB II*	_____	.5
CHM 470: Advanced LAB III*	_____	.5
CHM 471: Advanced LAB IV*[f]	_____	.5

Capstone Course

_____ _____: Research Experience[d] _____ 1 or NC

Distribution Courses—Two courses chosen from: CHM 361, 362, 451, 452 (one of which **must** be CHM 361 or 362 and one of which **must** be CHM 451 or 452)[g]

CHM ___: _____ _____ 1
CHM ___: _____ _____ 1

Collateral Courses (Required; count outside the major)

NOTE*: The following should be completed before the second term of junior year, except PHY 218, which may be taken concurrent with CHM 361.*

PHY 217: General Physics I **OR**
PHY 315: Introductory Physics I w/ Calculus[h] _____ 1
PHY 218: General Physics II **OR**
PHY 316: Introductory Physics II w/ Calculus[h] _____ 1
MAT 115: College Algebra w/Modeling (or waiver) _____ ___
MAT 125: Trigonometry w/Modeling (or waiver) _____ ___
MAT 135: Calculus I (or waiver) _____ ___
MAT 225: Calculus II (or waiver) _____ ___

ELECTIVES (count in 20 credits outside the major, unless course is in the major rubric—may continue on back)

Dept. & No.	Title	Term	Credit
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

[c] Some graduate programs in chemistry require a reading knowledge of a second language. Students without this knowledge are encouraged to satisfy this requirement by completing Perspective 6A (language requirement).

[d] Experiences include CHM 398/498 or an approved research project **AND** fulfill the ALE requirement.

[e] Credit cannot be received for both CHM 131 and 134.

[f] All majors must pass a departmental proficiency exam administered in CHM 471. As part of the lab component, students maintain a portfolio (see *Catalog & Student Handbook*) and are required to make at least two oral presentations—one on & one off campus.

[g] Students who plan to attend graduate school in any area related to chemistry should take **both** CHM 361 and 362.

[h] Students with a strong mathematics background may waive (on basis of test scores) PHY 217/218, then take the calculus-based physics sequence of PHY 315/316 instead.